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(E13)

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A1-CC, 1-D1, 1-E5, 1-E7, 1-E8, 9-A2A) D08-B) F06
A2E, 6-D3, 6-D13, 7-A2E, 7-D2) F(3-F17) G(2-A2B, 2-A2C)

BASE AG

97-11-06 9/DE-1039123 (99-05-12), C08G 63/40, 63 181, 63-50,
63-672, 64-22, C09D 17/00, C09K 19/38, C09D 167/02, C09B 67/20,
C08G 63/05, 63/54, 63/20Crosslinkable cholesteric ester or carbonate oligomers - for
production of cholesteric polymer networks and pigments

C99-085652

Addnl. Data: SCHUBMACHER P., KRICHELDORF H.R.,
KRAWINKEL T.

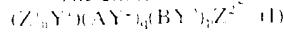
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NOVELTY

Cholesteric oligomers are new.

DETAILED DESCRIPTION

The cholesteric oligomers are of formula (I):



where:

n = 0-1;

q = 0-2;

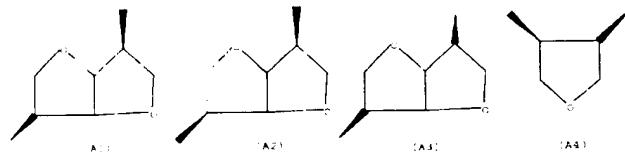
p = 1-20;

A = a chiral group:

INDEPENDENT CLAIMS are made for cholesteric polymer networks
obtainable by heating the cholesteric oligomers, preferably at 250-
300°C, and mono- or multilayer pigments comprising the cholesteric
oligomers or the cholesteric polymer networks.DEFINITIONS

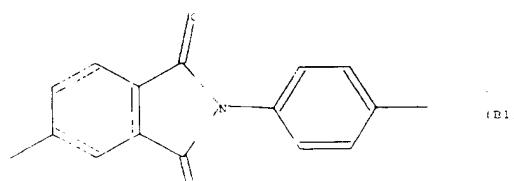
Preferred Definitions:

[DE 19749123-A+]

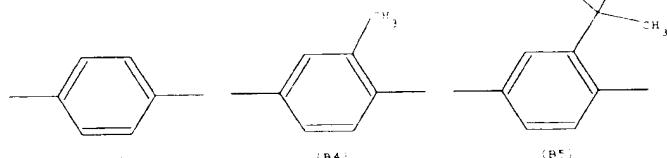
A = groups of formula A₁-A₄:B = groups of formula B₁-B₅:

[DE 19749123-A+/1]

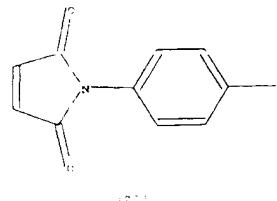
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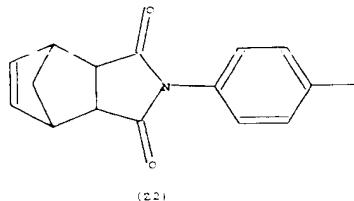
(B1)

or $(CH_2)_n$ where $n = 4-12$

Z [i.e. Z^1 and Z^2] = groups of formula Z^1 or Z^2 :



(21)



(22)

$q = 0, 1, 4$; $p = 2$; $n = 1$.

USE

The cholesteric oligomers can be used as coating materials or for producing pigments. The cholesteric polymer networks or pigments can be used in the automobile and automobile accessories sector, in the electronic data processing, leisure, sports and games sectors, as optical components (e.g. polarizers or filters), in the fields of

cosmetics, textiles, leather, jewelry and gifts, in writing utensils or on spectacle frames, in the building and household sectors, in printed products of all kinds, for production of paints and lacquers, for anti-counterfeiting, for coating of utensils, and for lacquering of automobiles.

ADVANTAGE

The cholesteric oligomers can be crosslinked in the anisotropic phase, especially thermally, without losing their cholesteric effect.

ORGANIC CHEMISTRY

Preferred Preparation: Claimed processes comprise (a) reacting $B(COCl)_2$ with $A(OH)_2$, ZOH and optionally $B(OH)_2$ in an inert solvent, especially 1-chloronaphthalene, and (b) reacting $A(OH)_2$, $B(OH)_2$ and ZOH with phosgene or especially diphenylphosgene.

EXAMPLE

An oligomer was prepared by reacting 40 mmoles $CICO-B^1-COCl$ and 15 mmoles $CICO-B^1-COCl$ ($m=6$) with 10 mmoles Z_1-OH , 45 mmoles $HO-B_2-OH$ and 5 mmoles $HO-A_1-OH$. (JGT)

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